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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
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10/648,426

08/27/2003

Tadahiro Ishizaka

010986.52734US

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23911 7590 04/18/2007
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EXAMINER

MOORE, KARLA A

ART UNIT

PAPER NUMBER

1763

SHORTENED STATUTORY PERIOD OF RESPONSE	MAIL DATE	DELIVERY MODE
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3 MONTHS

04/18/2007

PAPER

Please find below and/or attached an Office communication concerning this application or proceeding.

If NO period for reply is specified above, the maximum statutory period will apply and will expire 6 MONTHS from the mailing date of this communication.

Office Action Summary

Application No.

10/648,426

Applicant(s)

ISHIZAKA ET AL.

Examiner

Karla Moore

Art Unit

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) OR THIRTY (30) DAYS, WHICHEVER IS LONGER, FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133). Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

Status

- 1) ☒ Responsive to communication(s) filed on 18 January 2007.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

Disposition of Claims

- 4) ☒ Claim(s) 1-3,6-8 and 11 is/are pending in the application.
- 4a) Of the above claim(s) _____ is/are withdrawn from consideration.
- 5) ☐ Claim(s) _____ is/are allowed.
- 6) ☒ Claim(s) 1-3,6-8 and 11 is/are rejected.
- 7) ☐ Claim(s) _____ is/are objected to.
- 8) ☐ Claim(s) _____ are subject to restriction and/or election requirement.

Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☒ The drawing(s) filed on 27 August 2003 is/are: a) ☒ accepted or b) ☐ objected to by the Examiner.
- Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- Replacement drawing sheet(s) including the correction is required if the drawing(s) is objected to. See 37 CFR 1.121(d).
- 11) ☐ The oath or declaration is objected to by the Examiner. Note the attached Office Action or form PTO-152.

Priority under 35 U.S.C. § 119

- 12) ☒ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).
- a) ☒ All b) ☐ Some * c) ☐ None of:
1. ☒ Certified copies of the priority documents have been received.
2. ☐ Certified copies of the priority documents have been received in Application No. _____.
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).

* See the attached detailed Office action for a list of the certified copies not received.

Attachment(s)

- 1) ☐ Notice of References Cited (PTO-892)
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948)
- 3) ☐ Information Disclosure Statement(s) (PTO/SB/08)
Paper No(s)/Mail Date _____.
- 4) ☐ Interview Summary (PTO-413)
Paper No(s)/Mail Date. _____.
- 5) ☐ Notice of Informal Patent Application
- 6) ☐ Other: _____.

DETAILED ACTION

Election/Restrictions

1. Claim 7 is directed to an invention that is independent or distinct from the invention originally claimed for the following reasons: Claim 7 represents a distinct species of the disclosed invention as disclosed in Figure 4 and beginning at page 13, line 26 of the specification. The species comprises a differing mutually exclusive characteristic (with respect to Figures 1-3 and the previously examined claims where a cooling mechanism is formed in the support member/bottom plate) of a cooling mechanism formed in a vertical side wall of the processing apparatus.

Since applicant has received an action on the merits for the originally presented invention, this invention has been constructively elected by original presentation for prosecution on the merits. Accordingly, claim 11 is withdrawn from consideration as being directed to a non-elected invention. See 37 CFR 1.142(b) and MPEP § 821.03.

Claim Rejections - 35 USC § 102

2. The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

3. Claims 1-3, 6, 8-9 and 11 are rejected under 35 U.S.C. 102(e) as being anticipated by U.S. Patent Publication No. 2002/0075624 A1 to Wang et al.

4. Wang et al. disclose a processing apparatus comprising a processing apparatus in Figures 1-2 and 4-8, comprising: a process chamber made of a metal (Figure 1, 75; also see paragraph 4) for applying a process to an object to be processed placed in the process chamber by supplying a process

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gas to the object to be processed; a placement stage made of ceramics or a metal matrix composite (multiple structures: 115 and 175; paragraphs 36-39) located inside the process chamber so that the object to be processed is placed thereon; a heating device (235) incorporated in the placement stage; a support member made of metal ceramics composite (190; paragraphs 63-70) for supporting said placement stage; and a seal member (240; paragraph 52) located between a sidewall of said process chamber and the support member; wherein said support member is connected to said sidewall of said process chamber and configured and arranged to serve as a bottom plate of said process chamber, said placement stage is directly joined to a first part of said bottom plate (top surface). The apparatus further comprises a cooling mechanism located in the vicinity of said seal member (300; paragraphs 68 and 69) so as to cool said seal member.

5. With respect to claim 2 said support member is joined to a surface of said placement stage opposite to a surface on which the object to be processed is placed (see aforementioned figures).

6. With respect to claim 3, said support member has a substantially flat shape, and an entire surface of said placement stage opposite to a surface on which the object to be processed is placed is joined to a flat surface of said support member (see aforementioned figures).

7. With respect to claim 6, said cooling mechanism includes a coolant passage formed in said support member (300; paragraphs 68 and 69).

8. With respect to claim 8, said support member is joined to said placement stage by brazing (paragraphs 54-58).

9. With respect to claim 11, said support member has an opening to lead electrodes or power supply lines (associated with voltage supply, temperature controller, heater power supply, etc.), which extend from said placement stage, out of said process chamber.

Claim Rejections - 35 USC § 103

10. The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

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(a) A patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

11. This application currently names joint inventors. In considering patentability of the claims under 35 U.S.C. 103(a), the examiner presumes that the subject matter of the various claims was commonly owned at the time any inventions covered therein were made absent any evidence to the contrary.

Applicant is advised of the obligation under 37 CFR 1.56 to point out the inventor and invention dates of each claim that was not commonly owned at the time a later invention was made in order for the examiner to consider the applicability of 35 U.S.C. 103(c) and potential 35 U.S.C. 102(e), (f) or (g) prior art under 35 U.S.C. 103(a).

12. Claim 10 is rejected under 35 U.S.C. 103(a) as being unpatentable over Wang et al. as applied to claims 1-3, 6, 8-9 and 11 above in view of U.S. Patent No. 6,108,190 to Nagasaki et al.

13. Wang et al. disclose the invention substantially as claimed and as described above.

14. However, Wang et al. fail to explicitly teach said placement stage is joined to said bottom plate by interposing a powder of titanium therebetween and heating at a temperature of 700 degrees Celsius to 900 degrees Celsius in a nitrogen atmosphere.

15. Nagasaki et al. teach providing a placement stage and bottom plate joined by brazing using an aluminum alloy powder such as JIS AC9B alloy, which contains titanium. It is also known in the art to conduct a brazing process in an inert atmosphere such as nitrogen or argon. One of ordinary skill in the art would have further been able to find and optimal processing temperature for achieving optimal processing results using the brazing powder and the materials to be joined.

Response to Arguments

16. Applicant's arguments filed 18 January 2007 have been fully considered but they are not persuasive.

17. With respect to Applicant's argument that the support member of Wang et al. fails to be configured and arranged to serve as a bottom plate of said process chamber, Examiner notes that

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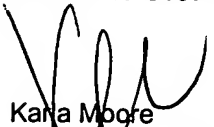
although the bottom plate does not constitute *the entire bottom surface* of the processing chamber, it is nevertheless configured and arranged to serve as a bottom plate of the processing chamber (i.e. an inner portion of the bottom plate is the bottom of the chamber) as can clearly be seen in Figure 1. Applicant appears to be relying on features which are not recited in the claims (i.e. the bottom plate constituting the entire bottom surface of the processing chamber). It has been found that although the claims are interpreted in light of the specification, limitations from the specification are not read into the claims. See *In re Van Geuns*, 988 F.2d 1181, 26 USPQ2d 1057 (Fed. Cir. 1993).

Conclusion

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Karla Moore whose telephone number is 571.272.1440. The examiner can normally be reached on Monday-Friday, 9:00 am-6:00 pm.

If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Parviz Hassanzadeh can be reached on 571.272.1435. The fax phone number for the organization where this application or proceeding is assigned is 571-273-8300.

Information regarding the status of an application may be obtained from the Patent Application Information Retrieval (PAIR) system. Status information for published applications may be obtained from either Private PAIR or Public PAIR. Status information for unpublished applications is available through Private PAIR only. For more information about the PAIR system, see <http://pair-direct.uspto.gov>. Should you have questions on access to the Private PAIR system, contact the Electronic Business Center (EBC) at 866-217-9197 (toll-free).



Karla Moore
Primary Examiner
Art Unit 1763
15 April 2007